

Work Order ID 72090

Tuesday, July 19, 2011 10:11:03 AM



Page 1

Item ID: D2580-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 205 Skidtube bent detail

Start Date: 7/19/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 7/26/2011 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: *H*

Date: *11-07-19* Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2580

RevD DEO-D1

100

0.00



Skidtubes

Memo

0.00

Skidtubes

1- Inspect mat'l D2500-1-190 for damage.

2-Drill pilot holes using drill jig DT 8149 (Do not use cutting fluid)

3-Open holes to 0.500" as per Dwg D2580 without cutting fluid

4-Deburr holes per QSI002 section 4.2.3 and blow out all chips from inside of tube

5- Chemical Conversion Coat as per QSI 005 4.1

6-Bond web in place per QSI 015.

□□

A/R Sikaflex-291 batch: *117516* □□□

Sikaflex expire date: *12/01/15*

Start time and date: *11/07/21* bond for 12hrs

10:00 am

DL 11/07/21

B 11/07/21

W/O:		WORK ORDER CHANGES					
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

101

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

2 0 BEN/07/25

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2 0 BEN/07/25

140

Identify as per dwg & Stock Location: LG

0.00



Packaging

Memo

0.00

Packaging

2 0 BEN/07/25

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Page 3

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Cust Item ID:

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/7/26

11-07-28
②

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Tuesday, July 19, 2011 10:11:30 AM

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Required Qty: 2.00

Comments: IPP B001.11.08 Revised Step 9, 10, 12, and 13 SM IPP Rev:C
10.12.01 as per DEO D1 DD ver:ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-190  Ext'n -1' Beam Tube 4"		Manufactured	No			100	Each	51.0000	1	2		11/07/20	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				HALL		9							
				58427		9							
				LG		42							
				66296		42							
D2596  Web, 205 Skidtube		Manufactured	No			100	Each	2.0000	1	2			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				LG046	22263	2							
				71826		2							

W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

RELEASED
07.06.28 *[Signature]***DEO ATTACHED**
UNDER REVIEW*[Signature]*
RMV *[Signature]*

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *72020**11-07-19***GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:
SEE NOTES ON
PAGE 2 FOR D2580-041 AND
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

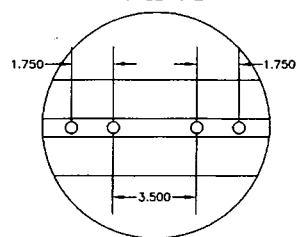
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

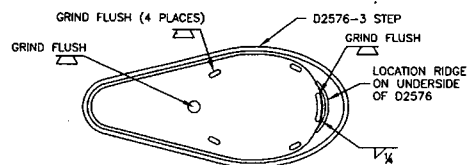
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NOTE: Date & initial all entries

DETAIL A
SCALE 5:24



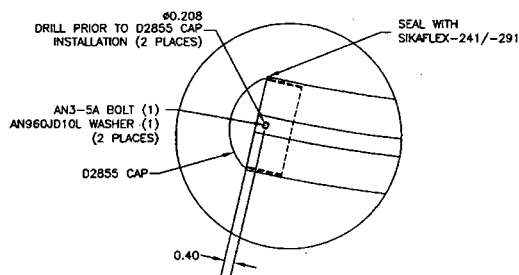
DETAIL B
SCALE 5:24



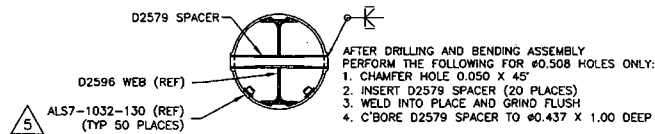
RELEASED
07.06.28

DEO ATTACHED
RMV 07.06.30

DETAIL C
SCALE 5:24



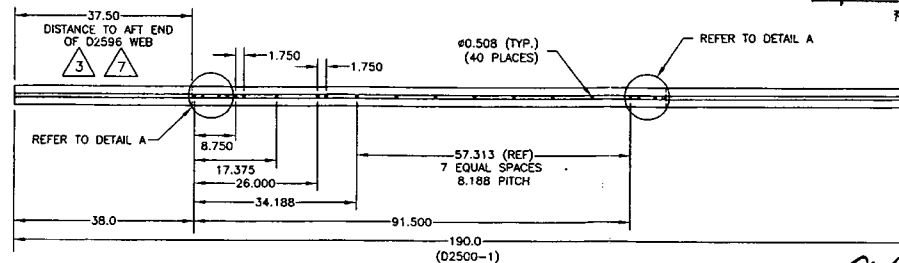
SECTION D-D
SCALE 5:24



D2580-041 NOTES

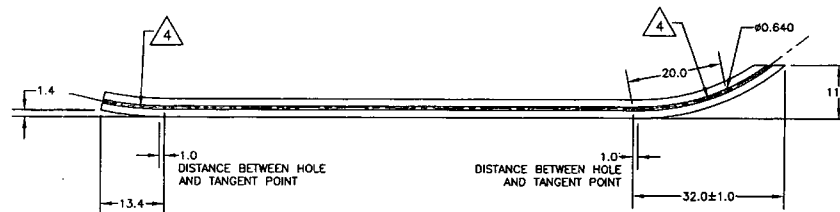
- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

D2580-1 DRILLING DETAIL

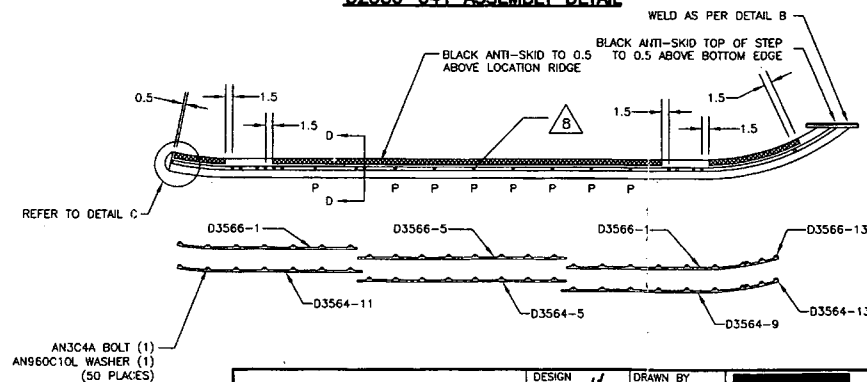


UNDER REVIEW
07.11.06.30
RMV 07.06.30

D2580-1 BENDING AND CUTTING DETAIL



D2580-041 ASSEMBLY DETAIL



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DESIGN	DRAWN BY	DART	DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.	REV. D
DATE		D2580	SHEET 2 OF 3
07.02.27		TITLE	SCALE
		205 SKIDTUBE ASSEMBLY	1:24

Dart Aerospace Ltd

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RELEASED
07-06-28

~~DEO ATTACHED~~
RMV 6/11/06 3u

Technical drawing of a circular component with a central hole and a rectangular slot. The drawing includes labels for various parts and dimensions:

- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)
- AN3-SA BOLT (1)
- AN960UD10L WASHER (1) (2 PLACES)
- D2855 CAP
- SEAL WITH SIKAFLEX-241/-291
- SEE NOTE ii)
- 0.40

5

D2579 SPACER

D2596 WEB (REF)

AL57-1032-130 (REF)
(TYP 50 PLACES)

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO #0.437 X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE
WITH THE SPACER AT THIS LOCATION

[illegible]

Diagram showing the elevation view of the bridge deck with dimensions and hole locations. Key dimensions include: 5.985, 5.338 (REF), 51.340, 39.580, 5.915, 40.508 (8 PLACES), 20.0, 11.5, 1.4, 1.0, 13.4, 32.0 ± 1.0, and 0.640. A note indicates: (MAKE FROM 02580-1 DRILLING DETAIL).

WELD AS PER DETAIL F

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

NO C'BORE NO PLUG

NO C'BORE NO PLUG

NO C'BORE NO PLUG

NO C'BORE NO PLUG

D3566-1

D3566-5

D3566-1

D3566-13

D3564-11

D3564-5

D3564-9

D3564-13

AN304A BOLT (1)

AN960C10L WASHER (1)

(50 PLACES)

DESIGN	DRAWN BY	
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SCALE

1:24

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